

## DETAILED ACTION

1. This Action is in response to Applicant's amendment filed on 28DEC2009. **Claims 24-47** are now pending in the present application. **This Action is made FINAL.**

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made

in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 24, 27, 30-32, 36, 39, 40-42, and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Blake et al. (US Patent # 6,067,412)** in view of **Spaid (US Patent # US 7,269,643 B2)**.

a) Consider **claims 24 and 36**, Blake et al. clearly show and disclose, a method and system, implemented using a computer system, for evaluating download performance of web pages accessible via a network comprising the steps of: providing at least one model to said computer system for predicting a set of download performance parameters for said web pages, said at least one model including at least one optimization parameter (abstract, column 3 lines 51-57); measuring, using said computer system, said set of download performance parameters for said sample web pages (abstract, column 3 lines 48-53); evaluating, using said computer system, said set of download performance parameters for said sample web pages on the basis of said at least one model for different values of said at least one optimization parameter (abstract, column 3 lines 60-63, column 4 lines 11-49); defining, using said computer system, an error indicative of the difference between said set of download performance parameters for said sample web pages as measured and as evaluated on the basis of said at least one model, respectively (abstract, column 4 lines 29-38); selecting, using said computer system, an optimized model including a value of said at least one optimization parameter in order to reduce said error below a predetermined value (abstract, column 4 lines 56-61); and evaluating, using said computer system, said set of download performance parameters for said selected set of use web pages on the basis of said optimized model (abstract, column 4 lines 62-67 column 5 lines 1-4). However, Blake et al. does not specifically disclose web pages or

defining/selecting, using said computer system, a set of web pages or including least one parameter indicative of at least one of the type and size of each object included in said sample web pages.

Spaid shows and discloses web site quality measurement system and method, wherein Spaid discloses defining/selecting, using said computer system, a set of web pages (abstract, column 2 lines 54-61) and including least one parameter indicative of at least one of the type (substance of content) and size (volume of content) of each object included in said sample web pages (column 3 lines 58-67, column 4 lines 1-7, column 5 lines 49-63).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Spaid and Robertson et al. as modified by Blake et al. since both concern evaluating the performance of resources and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate defining/selecting, using said computer system, a set of web pages, as taught by, Spaid into the system of Blake et al. for the purpose of measuring the quality of web pages (Spaid; abstract), thereby allowing various parameters associated with a web page to be taken into consideration when determining the quality of a web page.

b) Consider **claims 27 and 39, and as applied to claims 24 and 36 above**, Blake et al. as modified by Spaid clearly show and disclose, the method and system of claims 24 and 36, wherein said sample web pages are selected, using said computer system, as a statistically meaningful set of the web pages available for downloading via said network (the pages selected for analysis are the ones to be analyzed therefore the set of web pages selected would necessarily be statistically meaningful for the purposes of analysis)(Spaid; abstract, column 2 lines 54-61).

c) Consider **claims 30 and 40, and as applied to claims 24 and 36 above**, Blake et al. as modified by Spaid clearly show and disclose, the method and system of claims 24 and 36, further comprising the steps of: defining, using said computer system, for each sample page in said set of sample pages, a partial error indicative of the difference between said set of download performance parameters for said sample web pages as measured and as evaluated on the basis of said model, respectively (Blake; Abstract, column 4 lines 29-38); determining, using said computer system, from the partial errors defined for each sample page in said set of sample pages a global prediction error (Blake discloses calculating errors, while Robertson discloses evaluating single pages of a set of pages (partial) as well as the whole set of pages (global))(Blake; column 4 lines 29-38 Robertson; column 4 lines 36-55, column 6 lines 39-48); and selecting, using said computer system, said optimized model including a value of said at least one optimization parameter minimizing said global prediction error (Blake; abstract, column 4 lines 56-61).

d) Consider **claims 31 and 41, and as applied to claims 30 and 40 above**, Blake et al. as modified by Spaid clearly show and disclose, the method and system of claims 30 and 40, comprising the step of defining, using said computer system, said global prediction error as one of a mean value (Blake; column 15 lines 24-43) and a peak value of the partial errors defined for each sample page in said set of sample pages.

e) Consider **claims 32 and 42, and as applied to claims 24 and 36 above**, Blake et al. as modified by Spaid clearly show and disclose, the method and system of claims 24 and 36, comprising the step of providing, using said computer system, different types of said at least one model for different types of said network (each model is based on the network it is intended to model, therefore each different type of network would have a different type of model)(Blake; abstract, column 4 lines 56-61).

f) Consider **claim 46**, and **as applied to claim 24 above**, Blake et al. as modified by

Robertson et al. clearly show and disclose, a computer readable medium with a computer program product directly loadable into a memory of at least one computer, the computer program product including software code portions for performing the steps of any one of claims 24 to 34 when the product is run on the at least one computer (Robertson; column 3 lines 55-64).

6. **Claim 25-26 and 37-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Blake et al. (US Patent # 6,067,412)** in view of **Spaid (US Patent # US 7,269,643 B2)** in further view of **Robertson et al. (US Patent # US 6,973,490 B1)**.

a) Consider **claims 25 and 37**, and **as applied to claims 24 and 36 above**, Blake et al. as modified by Spaid clearly show and disclose, the method and system of claims 24 and 36, wherein said set of download performance parameters comprises at least one parameter selected from a group comprising: download time for a given web page, and an efficiency index indicative of how said given web page exploits the capacity of said network. However, Blake et al. as modified by Spaid does not specifically disclose download performance parameters comprises download time for a given web page.

Robertson et al. show and disclose the performance of communication systems having remotely readable digital documents, wherein download performance parameters comprises download time for a given web page (column 4 lines 37-55).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate download performance parameters comprises download time for a given web page, as taught by, Robertson et al. into the system of Blake et al. as modified by Spaid for the purpose of internet performance monitoring and analysis (Robertson; Abstract).

b) Consider **claims 26 and 38**, and **as applied to claims 24 and 36 above**, Blake et al. as modified by Spaid clearly show and disclose, the method and system of claims 24 and 36, wherein said at least one model includes at least one parameter selected from a group comprising: a throughput of said network and a round trip time of said network. However, Blake et al. as modified by Spaid does not specifically disclose that the at least one model includes the parameter indicating a throughput of said network.

Robertson et al. show and disclose the performance of communication systems having remotely readable digital documents, wherein Robertson et al. discloses including the parameter indicating the throughput of the network.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate including the parameter of the throughput of the network, as taught by, Robertson et al. into the system of Blake et al. as modified by Spaid for the purpose of internet performance monitoring and analysis (Robertson; Abstract).

7. **Claims 28 and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Blake et al. (US Patent # 6,067,412)** in view of **Spaid (US Patent # US 7,269,643 B2)** in further view of **Garg et al. (US Patent # US 6,327,677 B1)**.

a) Consider **claim 28**, and **as applied to claim 24 above**, Blake et al. as modified by Spaid clearly show and disclose, the method of claim 24, wherein said at least one model is selected, using said computer system, by taking into account at least one threshold related to operational parameters of said network. However, Blake et al. as modified by Spaid does not specifically disclose by taking into account at least one threshold related to operational parameters of said network.

Garg et al. show and disclose network monitoring systems, wherein Garg et al. discloses taking into account at least one threshold related to operational parameters of said network (column 1 lines 50-67, column 2 lines 1-96, column 5 lines 11-26).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate taking into account at least one threshold related to operational parameters of a network, as taught by, Garg et al. into the system of Blake et al. as modified by Spaid for the purpose of monitoring network performance (Garg; column 1 lines 35-42).

b) Consider **claim 29**, and **as applied to claim 28 above**, Blake et al. as modified by Spaid as modified by Garg et al. clearly show and disclose, the method of claim 28, comprising the step of providing in said network at least one server having a respective processing time and said at least one threshold is a function of said processing time (response time)(Garg; column 1 lines 50-67, column 2 lines 1-96, column 5 lines 11-26).

8. **Claims 33, 35, 43, 45, and 47** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Robertson et al. (US Patent # US 6,973,490 B1** in view of **Blake et al. (US Patent # 6,067,412)** in further view of **Spaid (US Patent # US 7,269,643 B2)**.

a) Consider **claims 33 and 43**, Robertson et al. clearly show and disclose, a method and system of evaluating download times of web pages accessible via a network, comprising the steps of: evaluating, using said computer system, said download times on the basis of at least one model comprising a module for evaluating the sum (column 4 lines 37-55) of: at least one first factor determined analytically on the basis of network ( $b, \lambda$ ) and web page ( $n, d, h$ ) parameters (column 4 lines 37-60, column 5 lines 17-18). However, Robertson et al. does not specifically disclose a second

factor being a function of an optimization parameter ( $\lambda$ ) or including least one parameter indicative of at least one of the type and size of each object included in said sample web pages.

Blake et al. show and disclose identifying changes to computer system resources to improve performance, wherein a factor being a function of an optimization parameter ( $\lambda$ )(abstract, column lines 56-61, column 16 lines 20-27).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate and optimization parameter, as taught by, Blake et al. into the system of Robertson et al. for the purpose of improving performance (Blake; column 1 lines 7-10).

However, Robertson et al. as modified by Blake et al. does not specifically disclose including least one parameter indicative of at least one of the type and size of each object included in said sample web pages.

Spaid shows and discloses web site quality measurement system and method, wherein Spaid discloses including least one parameter indicative of at least one of the type and size of each object included in said sample web pages (column 3 lines 58-67, column 4 lines 1-7, column 5 lines 49-63).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Spaid and Robertson et al. as modified by Blake et al. since both concern evaluating the performance of resources and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate including parameters associated with a web page such as type and size, as taught by, Spaid et al. into the system of Robertson et al. as modified by Blake et al. for the purpose of measuring the quality of web pages (Spaid; abstract), thereby allowing various

parameters associated with a web page to be taken into consideration when determining the quality of a web page.

b) Consider **claims 35 and 45**, and **as applied to claims 26 or 33 and 38 or 43 above**,

Robertson et al. as modified by Blake et al. as modified by Spaid clearly show and disclose, the method and system of claim 26 or claim 33 and 38 or 45, wherein said at least one model corresponds to the following relationship:

$$t = \left( \frac{nd}{b} \right) + \left( \frac{nh}{b} + 2l + \frac{(n-1)l}{\lambda} \right)$$

where t is the total download time of the page (column 6 lines 39-48), n is the number of objects therein (Robertson; column 6 lines 39-48), d is the average size for its objects (Robertson; column 6 lines 39-48), b is the downstream throughput (Robertson; column 5 lines 17-18), h is the dimension of the HTTP headers (Robertson; column 8 lines 33-36), l is the network round trip time (Robertson; abstract, column 4 lines 56-61) and  $\lambda$  is said at least one optimization parameter (Blake; column 4 lines 43-55, column 6 lines 39-48, column 10 lines 47-62)(If the prior art structure is capable of performing the intended use, then it meets the claim. Robertson et al. clearly shows the calculation of the total download time of a web page by taking into account the various parameters that attribute to the download time of a web page. Blake et al. disclose optimizing the performance a system. Thus the combination of Robertson et al. with Blake et al. would have been obvious in order to optimize the system by optimizing the download time of a web page by taking into account the various parameters associated therewith. Therefore, the combination of Robertson et al. and Blake et al. meet the claim.)

c) Consider **claim 47**, and **as applied to claim 35 above**, Robertson et al. as modified by Blake et al. as modified by Spaid clearly show and disclose, a computer readable medium encoded

with a computer program product directly loadable into a memory of at least one computer, the computer program product including software code portions for performing the steps of claim 35 when the product is run on the at least one computer (Robertson; column 3 lines 55-64).

9. **Claims 34 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Robertson et al. (US Patent # US 6,973,490 B1)** in view of **Blake et al. (US Patent # 6,067,412)** in view of **Spaid (US Patent # US 7,269,643 B2)** in further view of **Stoica et al. ("A Simple Hyperbolic Model for Communication in Parallel Processing Environments")**.

a) Consider **claims 34 and 44, and as applied to claims 33 and 43 above**, Robertson et al. as modified by Blake et al. as modified by Spaid clearly show and disclose, the method and system of claims 33 and 43. However, Robertson et al. as modified by Blake et al. as modified by Spaid does not specifically disclose said second factor is a function of hyperbolic type.

Stoica et al. show and disclose performance evaluation in communication networks, wherein a factor is a function of hyperbolic type (abstract, page 2 lines 12-26, page 3 lines 11-24).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate using a hyperbolic function, as taught by, Stoica et al. into the system of Robertson et al. as modified by Blake et al. as modified by Spaid for the purpose of evaluating the performance (Stoica; abstract).

#### *Response to Arguments*

10. Applicant's arguments filed 28DEC2009 have been fully considered but they are not persuasive.

Applicant argues that Blake, Spaid, Robertson, Garg, and Stoica, whether taken alone or in any combination, do not teach or suggest “providing at least one model to said computer system for predicting a set of download performance parameters for said web pages, said at least one model including at least one optimization parameter.., wherein said at least one model includes at least one parameter indicative of at least one of the type and size of each object included in said set of sample web pages.”

The Examiner respectfully disagrees; Blake et al. clearly discloses providing at least one model to said computer system for predicting a set of download performance parameters, said at least one model including at least one optimization parameter (at least; abstract, column 3 lines 51-57). Blake clearly discloses the system collects actual performance measurements from the target computer system as it executes the target computer programs. The system uses these actual performance measurements along with a model of the target computer system to determine the most likely (or most probable) workload placed on the target computer system by the target computer program. In this way, an estimate of the actual workload can be generated. The system then uses the most probable workload to determine which system resource is the bottleneck resource (parameter to be optimized, i.e. optimization parameter). In a preferred embodiment the system provides an analysis of possible changes to the target computer system's configuration that will result in improved performance (optimization). Therefore, Blake et al. clearly discloses providing at least one model to said computer system for predicting a set of download performance parameters, said at least one model including at least one optimization parameter.

Spaid clearly discloses downloading web pages measuring a set of download performance parameters for web pages including at least one parameter indicative of at least one of the type and size of each object included in said set of sample web pages (column 3 lines 58-67, column 4 lines 1-

7, column 5 lines 49-63). Spaid clearly discloses including in the quality measurement of a web page's at least one parameter indicative of at least one of the type (substance of content) and size (volume of content) of each object included in said sample web pages. Therefore, Spaid clearly discloses including at least one parameter indicative of at least one of the type and size of each object included in said set of sample web pages.

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Spaid and Robertson et al. as modified by Blake et al. since both concern evaluating the performance of resources (e.g. programs, web pages) and as such, both are with in the same environment.

Therefore, the combination of Blake et al. and Spaid clearly discloses providing at least one model to said computer system for predicting a set of download performance parameters for said web pages, said at least one model including at least one optimization parameter, wherein said at least one model includes at least one parameter indicative of at least one of the type and size of each object included in said set of sample web pages.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 2001/0037373 A1
- US 2005/0060168 A1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL C. MURRAY whose telephone number is 571-270-1773. The examiner can normally be reached on Monday - Friday 0800-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571)-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. C. M./  
Examiner, Art Unit 2443

/PHUOC NGUYEN/  
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